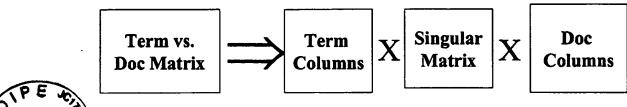
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|                    | Doc #1 | Doc #2 | • • • | Doc #n |
|--------------------|--------|--------|-------|--------|
| able               | 1      | 0      | •••   | 1      |
| acid               | 0      | 2      | •••   | 0      |
| •••                | •••    | •••    | •••   | •••    |
| <term m=""></term> | 1      | . 0    |       | 1      |

FIGURE 1 Term by Document Matrix

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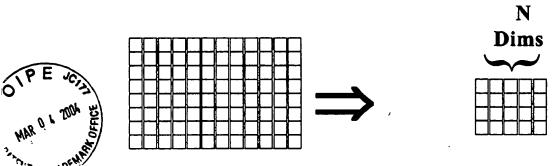


MAR D & 700% WHEN

## **SVD Extracts Key Relationships among Terms - Basis for Conceptual Matching**

FIGURE 2 – Singular Value Decomposition (SVD) Operation

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Large, Sparse Matrix

**LSI Vector Space** 

Typically, N= Several Hundred

FIGURE 3 - Dimensionality Reduction

FIGURE 4

